CLAIMS

What we claim is:

1. A method for determining a focus point of a light source and lense, the method comprising:

directing light from a light source through the lense and onto a target surface, the light source being positioned on a first side of the lense and the target surface being positioned on a second side of the lense;

detecting, at a position on the first side of the lense, a reflection of the light from the light source reflecting off of the target surface;

making a determination, based at least in part on a focus characteristic of the reflection, whether the position on the first side of the lense would be sufficiently in focus for a second light that would originate from near the target surface.

2. The method of claim 1, wherein the step of making the determination is performed without using the second light.

3. The method of claim 1, further comprising the step of determining a dimension of the reflection as captured on a light-capturing medium, and using the dimension as the focus characteristic.

4. The method of claim 1, wherein the step of making a determination includes determining that the position on the first side of the lense would be out of focus for the second light.

5. The method of claim 4, further comprising the step of adjusting at least one of a position of the lense, a position of the target surface, and the position of the reflection in order to make the position on the first side of the lense be sufficiently in focus using the focus characteristic of the reflection.

6. The method of claim 5, further comprising the step of:
determining a dimension of a reflection as captured on a light-capturing medium;
wherein the step of making a determination includes determining whether the dimension of the reflection is at an approximate minimum size.

7. The method of claim 6, wherein the step of adjusting includes moving the light-capturing medium axially with respect to the lense in order to make the dimension of the reflection smaller.

8. The method of claim 1, further comprising the step of adjusting, in an axial position, at least one of a position of the lense, a position of the target surface, and the position of the reflection until an approximate minimum dimension of the reflection is determined.

9. The method of claim 1, wherein the step of directing light from a light source includes directing either a diverging laser beam, other coherent or an incoherent point source.

10. The method of claim 1, wherein the step of directing light from a light source includes transmitting light from an optical fiber.

11. The method of claim 1, wherein the step of detecting the reflection includes locating a cluster of illuminated elements on a optical detector array.

12. The method of claim 1, wherein the step of detecting the reflection includes moving a receiving optical fiber end until at least a portion of the reflection is captured and light is maximized within the optical fiber.

13. The method of claim 1, wherein the step of detecting the reflection includes moving a receiving single element detector or integrating optical device until the light is maximized on that element or integrating device.

14. The method of claim 1, wherein the step of detecting the reflection includes moving a receiving masked detector array includes locating a cluster of illuminated elements on the masked array.

15. The method of claim 12, wherein the step of making the determination includes determining whether the reflection is sufficiently small to be substantially captured within the receiving optical fiber end.

16. The method of claim 1, wherein a distance between the lense and the target surface is different than a distance between the lense and the light source.

17. The method of claim 1, wherein the step of making the determination includes determining whether the reflection passed through a mask prior to being captured on a light-capturing medium.

18. A method for positioning a fiber to receive a laser beam emitted from a laser in an optical communication assembly, the method comprising:

directing light from a secondary light source through the lense and onto a target surface corresponding to where the laser is to be located when the optical communication assembly is put into operation, the secondary light source being positioned on a first side of the lense and the target surface being positioned on a second side of the lense;

detecting, at a position on the first side of the lense, a reflection of the light from the secondary light source reflecting off of the target surface;

making a determination, based at least in part on a focus characteristic of the reflection, whether the position on the first side of the lense would be sufficiently in focus for the laser.

19. The method of claim 18, further comprising the step of adjusting a position of the laser until the position on the first side of the lense is determined to be in focus.

20. The method of claim 18, further comprising the step of fixing the laser in position with respect to the lense in an axial direction upon making the determination that position on the first side of the lense would be sufficiently in focus for the laser.

21. The method of claim 18, wherein the step of directing light from a secondary light source includes directing either an incoherent bema or a laser beam.

22. The method of claim 18, wherein the step of detecting a reflection includes capturing the reflection on an image capturing medium.

23. The method of claim 22, wherein the step of making the determination includes determining a dimension of the reflection is it appears on the image capturing medium.

24. The method of claim 18, wherein the lense may be fixed or moveable relative to the reference plane.

25. The method of claim 18, wherein the step and method of determining the position of focus may also be used to determine position of a non-focused position of the light beam.